THE TROUGH-SUSPENDER FOREARM SLING.

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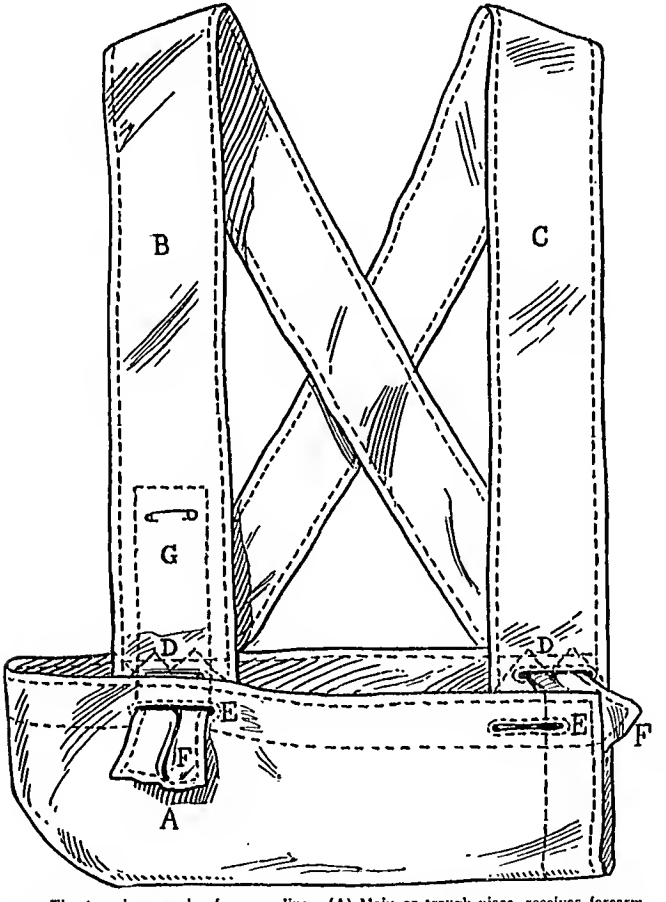
AN easy, comfortable, yet efficient arm sling has ever been a desideratum in the arm sling-immobilization work of arm, clavicle and chest surgery. Surgeons are familiar with the standing inconveniences of the more or less complicated soft bandage arm sling immobilization following traumatism and operations; the inconveniences of the plaster; the discomforts of the plaster Paris bandage, its weight, excoriations, difficulties in application and reapplication; the familiar irritating pressure of the old arm sling upon the lig. nuchae and cervical tissues, especially when cervical cellulitis is present as from carbuncles, boils, sloughing glands, and other inflammatory and painful reactions. In children, it is especially difficult to obtain a secure comfortable and easy immobilization. The object of the present communication is to call attention to the advantages of a sling made in the form of a suspended trough. Though simple in form and principle, this sling is rich in security, ease and comfort. It may be made of any size. The one I describe here is of the medium size, still so far as size is concerned, any dimensions will serve, so long as proportion and principle remain the same. The sling is made of a strong muslin cloth. It is made of three pieces. The main or body piece is formed out of a square piece of such cloth, with dimensions 18 by 18 inches, once folded together, open above, sewed together at one end, rounding its lower border, giving to this body piece the form of a trough with one end open. (See figure I, A.) The open edges are reinforced by a one and a half inch hem. To the main or trough piece is sewed two suspensory slings, (B. and C.), each 42 inches long, 3½ inches wide at proximal end where they are stitched to the upper

margin of the inner or body wall of the trough piece. These slings taper to a 2½ inch wide distal end (F). The attachment of these sling pieces to the body piece, the one 3 inches from the elbow end and the other flush with the free or

FIG. 1.



The trough-suspender forearm sling. (A) Main or trough piece, receives forearm. (B) Suspender sling. (C) Suspender sling. (D) and (E) Button-holes through distal extremities (F) of suspenders pass to lock and fix sling. (G) Suspender sling end folded up and pinned for fixation.

carpal end, is likewise reinforced by an inch and a half hem. Through this reinforced attachment on each side is made an opening (D), a buttonhole, also reinforced and large enough to pass the distal extremity of the suspensory sling. Likewise in the upper margin of the outer wall of the body piece, two buttonholes are made (E) directly opposite the former two to receive these distal ends. The distal (F) ends pass through the buttonholes of the walls of the trough piece and drawn taut as occasion demands securely lock and fix the arm sling. Illustrations show the forearm at right angles. Should occasion demand any other angle, the inclination or declination can be changed by shortening the pin fixation (G) on the one sling and elongating that of the other side to corresponding degree. By reversing or turning the body piece of the sling inside out, it adapts itself to either side of the body, viz., so that the suspender sling wall is in juxtaposition with the body.

Application.—Following the dressing appropriate to the injury of the part, whether of traumatic or operative nature, the forearm is placed in the body piece of the sling, so that the elbow approximates the closed end of the trough. Then, each suspensory sling is raised over the corresponding shoulder. (See figures I and II.) Next, they are brought down crossing each other in typical suspender fashion over the back of the chest, that each distal end may pass down to and through the buttonhole of the other side. (See figure III); the end further passed through the buttonhole on the other wall of the trough and the suspenders drawn taut, the arm sling is thus locked and made firm. The ends of the suspenders are folded up against and pinned to the suspender of the proximal side (G). This fixes the sling, giving it a firm purchase without discomforts of any nature, prevents swaying or other undue or inconvenient motion. In children, this solidity of fixation proves of inestimable advantage, in securing against the annoyances and dangers of escaping parts. Instead of pins in the first models, buttons were used, but the buttons were discarded because of

FIG. 2.

Anterior view of arm sling applied to a case of foot-ball fracture of the clavicle and Colles' fracture of the wrist. Shows easy riding sling; simple compress pad over site of fracture of clavicle.

FIG. 3.

Posterior view of arm sling, shows easy and firm purchase of both trough and suspender pieces.

possibility of infection. The application of the sling is simple, easy of manipulation, without complications, painless and secure. It can be applied and reapplied, its angles changed and rechanged without pain or discomfort.

Uses.—As an arm sling, wherever such immobilization is desired, as in fractures, dislocations of the arm, forearm, hand and chest; after burns, wounds or operations, for inflammations or neoplasms; following operations for correction of outline or development; in fractures of the clavicle a good dressing is formed by simply introducing a compress pad under the suspender sling of the affected side. (See figure II.)

In its use there is no dragging from weight of material; no distressing excoriation from plaster, skin or weather; no tenderness or soreness of tissue; the easy adaptability of the sling so as to overcome non-neutralization of opposing muscular activities, brings about a painless and perfect muscular and tissue repose.